

Village of Empire Water Testing

WHAT gets tested?
WHO does the testing?
WHEN is the testing done?

What	Who	When	Notes
Drinking Water	Village of Empire	Frequency determined by EGLE- Michigan Department of Environment, Energy and Great Lakes (formerly DEQ). Safe Drinking Water Rules By authority conferred on the department of environment, Great Lakes, and energy by section 5 of the safe drinking water act, 1976 PA 399, MCL 325.1005). PDF	Village has 4 wells, > 125 ft deep. Samples are collected and sent for testing, per EGLE requirements.
Ground Water (GW) <ul style="list-style-type: none">5 GW Test Wells9 Storm Water Infiltration Drains Front Street :7 Lake Street : 2 MDOT (M-22)	Village of Empire	Quarterly	Ground water wells tested for Nitrate, Nitrite, Ammonia, Conductivity, Phosphorous and Water Level Ground Water Test Well Locations
Beaches Lake Michigan South Bar	Benzie Leelanau Health Department	Weekly on a seasonal basis.	Sampled weekly during the summer season for body contact.
South Bar Lake Monitoring Health of South Bar Lake and shoreline Flora and Fauna	2008/09 - GLEC ¹ 2013/14 - GLEC 2019/20 - Grobbel ² Paid for by: Village of Empire	Intermittent	Recommendation to Village Council is to perform this type of larger study every 3-5 years. With implementation of recommendations to occur during the in-between years.
South Bar Lake CLMP Testing³			
Water Clarity*	South Bar Lake Association	Every week during the season	A Secchi Disk is used and results are provided to the MiCorps' Cooperative Lakes Monitoring Program (CLMP).
Summer Total Phosphorus*	South Bar Lake Association	September	Measures the phosphorus concentration in the lake. All plants need phosphates to grow. However, phosphates in water feed algae, which can grow out of control and create imbalances.
Chlorophyll a* (began in 2014)	South Bar Lake Association	5 times per year throughout the season, every other year	Chlorophyll is the green pigments in plants. When measured in lake water it is an indication of the amount of algae in the water. Volunteers for this testing participated in training from the Glen Lake Association. Special filtering equipment is necessary.
Spring Total Phosphorus* (began in 2015)	South Bar Lake Association	Early Spring just after the ice has melted.	See Summer Total Phosphorus notes.
South Bar Lake Aquatic Plant Mapping	South Bar Lake Association	1 st done in 2014. Two additional mappings were completed in 2016 and 2017. (2016 was discounted as reliable). Another is planned for August 2020.	

*No CLMP related tests were performed on South Bar Lake during the summer of 2020 due to a funding issue. The funding has been restored for another 5 years. Testing will resume in 2021.

Michigan Clean Water Corps (MiCorps) Fact Sheets:
[Aquatic Plant Identification & Mapping](#)
[Chlorophyll a](#)
[Secchi Disk Transparency](#)
[Total Phosphorus](#)

¹ Great Lakes Environmental Center
² Grobbel Environmental and Planning Associates
³ Cooperative Lakes Monitoring Program - <https://micorps.net/wp-content/uploads/sites/63/2020/02/CLMP-Bar-South-Leelanau-450237.pdf>
<https://micorps.net/lake-monitoring/clmp-documents/>